

#### IV. REMARKS

1. Claims 1, 2, and 4-14 remain in the application. Claims 15 and 16 are new. Claim 3 has been cancelled. Claims 1 and 2 have been amended.
2. New Figures 10 and 11 are included herewith showing the features of claims 15 and 16.
3. The specification has been amended to add headings in compliance with US practice and to include references to the new figures.
4. Applicants appreciate the indication that claims 4-7 and 13 would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. However, Applicants believe that these claims are patentable as they stand for the reasons stated below.
5. Claims 1, 2, 8, and 10 are patentable over Applicant's admitted prior art in view of *In re Larson*.
  - 5.1. The admitted prior art fails to disclose or suggest at least one electro-static discharge protector connected between the output contacts of a microphone capsule and being located within the microphone capsule, as recited by claim 1.
  - 5.2. The admitted prior art also fails to disclose or suggest at least one electro-static discharge protector located on an outer surface of the microphone capsule as recited by claim 2.

5.3. Furthermore, the admitted prior art fails to disclose or suggest a first impedance in series between said first output conductor and said first output contact within the microphone capsule, as recited by claims 1 and 2.

Applicants reiterate that it would not have been obvious to add a resistor like R11 to circuitry within the microphone capsule because the admitted prior art teaches away from adding R11.

The specification on page 2, lines 22-27, states that R11 may be added in series with one output conductor of the microphone capsule to decouple C11 and the external varistor VDR1. The specification goes on to describe why this is not a viable option. Described disadvantages of adding R11 include that it would have to be large enough to sustain an electro-static discharge (ESD) pulse, and that it may actually make the microphone more susceptible to ESD.

Thus, not only is there no suggestion to add R11 to the present invention, the admitted prior art teaches away from adding R11.

6. Applicants again submit that *In re Larson* is not applicable to the present application.

6.1. On page 8 of the present Office Action, the Examiner states that "Applicants arguments are essentially directed the use of the impedance resistor in series indicated by AAPA as being an optional addition to the circuit."

This statement does not accurately portray Applicants arguments.

Applicants argue that while R11 may be added in series with one output conductor of the microphone capsule to decouple C11 and the external varistor VDR1, the specification clearly teaches against such an addition. Thus, Applicants do not argue that R11 is optional. Applicants state that the admitted prior art teaches away from adding R11.

6.2. On page 8 of the present Office Action, the Examiner further states that:

In view of the fact that the AAPA provides support that the impedance is required to be larger to be most effective, the claim language of the invention fails to limit the claim language in respect to the advantage the use of the impedance resistor differing from that AAPA.

Applicants disagree. Page 2, lines 22-27 states that such a resistor would have to be very large to sustain an ESD pulse. This section then states the disadvantages of small surface mount resistors, and also mentions that adding a resistor between the ESD protector and the microphone may actually cause the microphone to be more susceptible to ESD.

Thus, the admitted art does not provide support that the impedance is required to be larger to be most effective. In fact, the admitted art discloses that a larger resistor is actually less effective, and has the adverse effect of actually increasing susceptibility to ESD.

6.3. Applicants further argue that *In re Larson* is inapplicable to the present claims because the point of law for which *In re Larson* is cited does not apply.

*In re Larson* is widely quoted in Office Actions as holding "that the use of a one piece construction instead of the structure disclosed in the prior art would be merely a matter of obvious engineering choice" (See MPEP 2144.04 V. B. Making Integral) and is generally used in obviousness rejections that state that it would be obvious to make integral what had previously been made in separate parts.

Applicants submit that the point of law for which *In re Larson* is cited does not apply. Applicants are not simply making multiple parts integral.

Applicants use a different configuration of parts that has remarkable advantages over the admitted prior art, as stated in the specification on page 3, line 23 through page 4, line 8.

6.4. Applicants submit that *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983), also cited in MPEP 2144.04 V. B. Making Integral, is more appropriate to the present application. In *Nortron*, Nortron Corporation argued that replacement of a bolted leaf spring and cross bar structure with a unitary rigid structure was obvious. The Court disagreed.

In its argument that the invention here is but making integral what had earlier been made in four bolted pieces, Nortron seeks to limit the focus of inquiry to a structural difference from the prior art and then to show that that difference alone would have been obvious. That effort is not proper under the statute, which requires that an invention be considered "as a whole," 35 U.S.C. § 103. As Judge Nixon recognized, "the emphasis on nonobviousness is one of inquiry, not quality". *Graham v. John Deere Co.*, 383 U.S. 1 (1966). The

inquiry here establishes that the present invention includes the inventor's elimination of the need for damping. Because that insight was contrary to the understanding and expectations of the art, the structure effectuating it would not have been obvious to those skilled in the art. *United States v. Adams*, 383 U.S. 39 (1966).

This case is much more analogous to the present application. In Nortron, Schenck's structure eliminated external resonance dampers. In the present application, the external protection circuitry has been eliminated. Applicants respectfully submit that the present invention does not simply integrate multiple parts, but that it uses a different, advantageous configuration of parts.

Applicants note that the components have not been moved from the outside to the inside of the capsule, but that the number of components needed for protecting the microphone capsule from ESD and RF disturbances has been remarkably reduced.

Applicants further submit that the previous rejections fail to consider the wholeness of the invention. Several components are avoided, for example, circuits 110 and 130 (Figure 1). In the structure of the present invention the external protection circuitry has been eliminated.

Applicants respectfully request a response to the arguments that Schenck v. Nortron Corp. is more appropriately applied to the present application.

At least for these reasons, applicants submit that claims 1 and 2 and dependent claims 4-13 are patentable over the admitted prior art in view of *In re Larson*.

7. Claims 11 and 12 are patentable over the combination of the admitted prior art in view of In re Larson and further in view of Hyatt et al. (US 6,642,297, "Hyatt").

Claims 11 and 12 depend from claim 1. Hyatt fails to supply the features missing from the admitted prior art, that is, at least one electro-static discharge protector connected between the output contacts of a microphone capsule and being located within the microphone capsule, and a first impedance in series between said first output conductor and said first output contact within the microphone capsule, all recited by claim 1.

At least for these reasons, claims 11 and 12 are patentable over the combination of the admitted prior art and Hyatt.

8. Claim 14 is patentable over the combination of the admitted prior art in view of In re Larson and further in view of Bjork et al. (US 5,880,643, "Bjork").

The combination of admitted prior art in view of In re Larson and Bjork fails to disclose or suggest, within the microphone capsule, a first impedance in series between said first output conductor and said first output contact within the microphone capsule, as recited by claim 14. Bjork fails to supply this missing feature.

9. Claims 15 and 16 are new and are directed to a mobile phone and a headset, respectively, comprising a microphone structure with the features of claim 1. Support for claims 15 and 16 may be found in the specification, for example, on page 1, lines 5-17. Applicants submit that for all the reasons set out above, none of the references or admitted prior art discloses or suggests the features of claims 15 and 16.

For all of the foregoing reasons, it is respectfully submitted that all of the claims now present in the application are clearly novel and patentable over the prior art of record, and are in proper form for allowance. Accordingly, favorable reconsideration and allowance is respectfully requested. Should any unresolved issues remain, the Examiner is invited to call Applicants' attorney at the telephone number indicated below.

The Commissioner is hereby authorized to charge payment for any fees associated with this communication or credit any over payment to Deposit Account No. 16-1350.

Respectfully submitted,

  
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24 June 2004  
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